



MWH HEALTH AND SAFETY PLAN

for

Libby Asbestos Superfund Site

1005439

September 2007

HASP Approvals:

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9-24-07

Date

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9-24-07

Date

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Procedure/Plan No: Libby Asbestos Superfund Site - HASP - 001

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1.0 INTRODUCTION

This Health And Safety Plan (HASP) has been prepared for MWH for the Libby Asbestos Superfund Site located in Libby, Montana. The project is being performed under contract with WR Grace. MWH does not have responsibility for initiating, maintaining, monitoring, supervising, or determining the adequacy or implementation of the safety precautions, programs, or plans of WR Grace as the Owner or of any other contractor which the Owner elects to directly employ. The information in this HASP should not be used for advising, issuing direction, or assuming control over any safety precautions or programs of WR Grace.

Where this HASP addresses safe practices for various specific sampling activities, this information is provided solely as directives or guidelines for protecting MWH employees and establishing minimum requirements for MWH Subcontractors. Any questions over implementation of this plan should be addressed to the designated project H&S Representative or the MWH Director of Environment, Safety and Health (ES&H).

MWH Subcontractors are contractually responsible for assuring the safety and health of their own employees. Any precautions, programs or HASP of any MWH Subcontractor must, at a minimum, meet the requirements of this HASP. However, this HASP is not intended to in any way be a substitute for any subcontractor's own risk analysis or to otherwise relieve any subcontractor of any applicable contractual and regulatory responsibilities and requirements for health and safety. MWH Subcontractor's provided this HASP shall acknowledge that it is only intended as minimum HASP requirements, and shall provide their own HASP, including any changes or revisions specific to their activities and scope of work.

1.1 Health and Safety Plan Objective

This HASP is issued by MWH to establish the work practices necessary for the protection of MWH employees during the performance of their work activities. The scope of services for MWH work activities is summarized in Section 2.1.

The objective of this HASP is to address known and reasonably anticipated health and safety hazards to the MWH employees providing services under MWH's contract with WR Grace for the Libby Asbestos Superfund Site work. In particular, this HASP provides general and specific information designed to prevent and minimize personal injuries, illnesses to any MWH employees and physical damage to equipment, supplies, and property. MWH requires MWH Subcontractors to have their own HASP. The MWH Subcontractor's HASP must at least meet the minimum requirements within this HASP.

All project activities will be performed in accordance with applicable sections of the Code of Federal Regulations (CFRs), including the Occupational Safety and Health Administration (OSHA) Standards 29 *Code of Federal Regulations* (CFR) 1910 and policies and procedures incorporated into the contract for the work activities. All MWH employees and visitors must comply with the requirements of this HASP.

1.2 Policy Statement

It is MWH's policy to conduct all work activities in a manner that protects employees, the public, and the environment; provides for a safe and healthful work environment; and to comply with applicable regulations and contractual requirements. ES&H is given primary importance in planning and conducting all work activities. MWH believes that any accident or injury should be considered preventable and MWH management is committed to achieving and sustaining zero accidents.

1.3 Employee Empowerment

Employees are MWH's most valuable asset; their safety is of vital concern. It is the intent on this project for employees to accept responsibility and ownership of the ES&H Program. This HASP is a living document, and the goal of MWH is that employees are involved in the development and evolution of the HASP.

1.4 Safety Management

The objective of safety management is to integrate safety, health, and environmental protection into all work practices. MWH will accomplish this objective by involving all employees in the work planning process, development of the ES&H Program, and development and updating of procedures. The ES&H program is tailored to project specific activities and is critical to the success of this project.

1.5 Modifying the Health and Safety Plan

This HASP must be modified if, new hazards are identified, the scope of work is revised, or the provisions specified in the HASP are not adequate to protect the health and safety of all personnel. Modifications will be accomplished by consultation with all project Health and Safety personnel, who in turn shall recommend appropriate modifications after approval by the MWH's Industrial Hygienist. All changes to the HASP shall be documented with the appropriate revision number. The MWH Industrial Hygienist and the Project Manager must approve the changes to this document. This process is to be documented in the HASP and the project files. The Project Manager will be responsible for informing staff and MWH Subcontractors of all changes.

1.6 H&S Training for Site Access

MWH will provide its employees with the proper training required for their work activities. At a minimum, MWH employees performing work on the site must be familiar with the requirements of this HASP, including the emergency contact information, this will be documented by completion of the Acknowledgement Form (Appendix A). MWH visitors will be briefed in accordance with Section 3.2.5.

MWH employees, subcontractors, and visitors must complete, at a minimum, the training requirements outlined in 29 CFR 1910.120(e). In addition, specific training may be required for the performance of assigned work activities. All employees working under this HASP will comply with appropriate procedures and training requirements outlined herein.

1.7 MWH Subcontractors Site Health and Safety Plan

MWH Subcontractors are responsible for preparing a project specific Health and Safety plan as applicable to their scope of work. Their HASP shall be acceptable to MWH. Their HASP shall provide for the means and methods to identify hazards, implement controls, and enforce the precautions and requirements for ensuring the health and safety its employees and property. At a minimum, the MWH Subcontractor must meet the requirements of this HASP.

2.0 PROJECT DESCRIPTION, LOCATION, AND SCOPE OF WORK

MWH will be performing field activities to support a remedial investigation/feasibility study (RI/FS) at the Libby Asbestos Superfund Site Operable Unit 3 (OU3). OU3 includes the property in and around the former vermiculite mine and the geographic area surrounding the former vermiculite mine located near Libby, Montana. The activities covered by this HASP coincide with the *Phase I Sampling and Analysis Plan for Operable Unit 3 Libby Asbestos Superfund Site* (SAP: EPA, September 2007) and include sampling various environmental media on and near the Libby mine site. This HASP may be updated to include other activity hazard analyses (AHA) for future tasks that may be implemented to support the RI/FS.

It is anticipated that the RI/FS field activities will be performed at the mine site and in areas away from the mine site in order to delineate the geographical area of OU3. The required personal protective equipment (PPE) will depend on where the field activities are occurring (i.e., on-mine or off-mine) and are based on air sampling performed during September 2007. Air samples were collected at locations along the ridgeline (which is beyond the WR Grace property) to the northwest, north and northeast of the mine. The air samples were collected for eight hours and analyzed by transmission electron microscopy for airborne tremolite asbestos. These samples showed no airborne tremolite above 0.0048 structures per mil which was the method analytical sensitivity. Therefore, respiratory protection is not required when performing activities beyond this ridgeline. Respiratory protection is required for all activities performed at the mine site or between the mine site and the ridgeline. The requirement for respiratory protection may be revised based on air sampling performed while performing the sampling activities (refer to Section 9.0).

3.0 PROJECT ROLES AND RESPONSIBILITIES

3.1 Roles and Responsibilities

MWH is responsible to WR Grace for verifying that the project activities are carried out in accordance with the agreed upon scope of work and related contract documents. Along with this responsibility, MWH will verify that MWH's Project activities are carried out in a manner consistent with applicable health and safety regulations, client ES&H requirements, corporate ES&H procedures, and this HASP.

3.2 Health and Safety Responsibilities

3.2.1 Project Manager

The MWH Project Manager, John D. Garr, has overall responsibility and authority for the project and therefore the safety of MWH's employees working on this project.

3.2.2 ES&H Director

The MWH ES&H Director, Clayton A. Bock, will provide corporate oversight of the MWH Project from a Health and Safety standpoint. The ES&H Director will interact with the MWH H&S Representative and the MWH Project Manager as necessary.

3.2.3 Health and Safety Representative

Jeremy S. Collyard of MWH will serve as the H&S Representative for this project, and will be responsible for implementing this HASP. The H&S Representative has the authority to stop work activities and to remove our employees (or Subcontractors) from the site when their actions are considered dangerous. His duties include, but are not limited to:

- Serve as the project lead for all issues related to health and safety.
- Conduct a daily safety meeting
- Maintain necessary project health and safety documentation and records.
- Verify that employees wear the prescribed level of personal protective equipment.
- Prepare incident reports for near miss accidents and actual work-related injuries, illnesses or losses involving the environment or property.

3.2.4 MWH Subcontractor Safety Personnel

Each MWH Subcontractor shall designate a competent person (capable of recognizing hazards, with the authority to immediately correct) in a supervisory position, to administer its HASP. Should the MWH Subcontractor's safety effort be considered inadequate, MWH has the option to request replacement of the designated safety representative.

3.2.5 Site Visitors

Personnel visiting the site who are invitees (visitors), employees, or subcontractors will be permitted to enter the MWH work area only with prior approval by the Project Manager or designee. The Project Manager or site H&S Representative must adequately inform the visitors of the current hazards and controls including the protective equipment required.

3.2.6 Accident Incident Investigation and Reports

Accidents and incidents, including near misses, involving MWH and/or MWH Subcontractor employees will be investigated. The Project Manager or designee will take the lead in conducting the investigation. If the Project Manager requires assistance, he/she will seek it from the ES&H Director or designee. The investigation will be documented using either a MWH incident report form (contact the MWH ES&H Director or designee, as needed) or the MWH Subcontractor's form. The original investigation report form for MWH employees, and a copy of the form for subcontractor employees will be forwarded to the MWH ES&H Director. (Refer to Appendix B for MWH incident reporting process and forms.) A copy of the report shall be provided to the MWH H&S Representative, and maintained in the project file on site.

4.0 STANDARD OPERATING GUIDELINES

All site operations will be performed in accordance with 29 CFR 1910 and 1926, and other applicable federal and state requirements. All MWH employees, MWH Subcontractors, and visitors must comply with the requirements of this HASP.

4.1 Recordkeeping

The Project shall establish reporting and recordkeeping requirements in accordance with Federal and/or State law and MWH ES&H and Procedure 402, *Occupational Injury and Illness Reporting and recordkeeping*, including reporting as required by WR Grace. Examples of reports or records are:

- Incident Reporting (Appendix B)
- Routine OSHA Reporting
- Safety and Health Records (i.e., training records, medical surveillance, exposure monitoring)

4.2 Guidelines for Observed or Identified Hazards

4.2.1 Hazards Created By or Identified During Work Controlled By MWH or MWH Subcontractors

When apparent non-compliance to the HASP or unsafe conditions or practices are observed, the MWH Project Manager, and/or H&S Representative will be notified and corrective actions completed. For MWH Subcontractor's, the subcontractor's H&S Representative or Project Manager will be notified and corrective actions will be required. For work activities performed by the subcontractor, the subcontractor is responsible for determining and implementing necessary controls and corrective actions.

When MWH employees or Subcontractors may be exposed to an apparent imminent danger, immediately stop work and alert all affected individuals. Remove all affected MWH and MWH Subcontractor employees from the danger and notify the Project Manager, and/or H&S Representative, and the subcontractor's H&S Representative or Project Manager where appropriate. Do not allow work to resume until adequate corrective measures are implemented and documented and accepted by the H&S Representative or his/her designee.

4.2.2 Hazards Identified with Client or other third party Work Activities

In carrying out MWH's responsibilities of assuring safety compliance for MWH and MWH Subcontractor employees, the following guidelines are implemented when employees identify hazardous conditions created by the Client or Contractors (third party) within or adjacent to their work area:

- If a condition is identified that could immediately result in an accident causing severe injury or death:
- Respond appropriately to ensure your own safety and all other MWH and MWH Subcontractor employees by immediately removing yourself from the immediate danger of the hazard zone.
- Advise others in the area of your potential concern. This would include notifying the client representative. Do not advise how to correct the immediate hazard, only that one appears to exist.
- If the potential concern is not addressed, the MWH employee should notify the project Manager or his/her designee, who then may notify the Owner of the potential concern. It is the Owner's responsibility to determine, and implement if appropriate, the issuance of a stop work order or to

suspend the affected activity. Additionally, only the Owner can authorize a restart of the suspended work activity following mitigation of the immediate hazard.

- If a condition is identified that may not be an immediate danger, but could result in an accident involving less serious or minor injury, damage to equipment, or environmental release:
- Respond appropriately to ensure your own safety and the safety of all other MWH and/or MWH Subcontractor employees in immediately removing yourself/them from the immediate hazard zone.
- Advise others in the area of your concern. This would include notifying the client representative. Do not advise how to correct the deficiency; only that it appears that one exist.

In either case, notify the Project Manager and/or H&S Representative. The situation will be evaluated and protective actions taken to ensure the safety of MWH and MWH Subcontractor employees during the performance of their work activities.

5.0 HEALTH AND SAFETY TRAINING REQUIREMENTS

It is important to start each meeting with a safety topic. This practice helps foster the incorporation of safety into all MWH activities.

5.1 General Health and Safety Training

All workers will be trained per the Occupational Safety and Health Administration (OSHA) Hazardous Waste and Emergency Response (HAZWOPER) standard 29 CFR 1910.120 (e) to include an initial 40-hour course and annual refresher training as necessary. In addition, MWH employees will be provided a briefing on the hazards of asbestos and the site specific safety and health requirements before working on-site or collecting off-site samples. This briefing will include working in remote areas safety (e.g. use of GPS, satellite phones, bear mace etc.).

Daily tailgate meetings will be conducted with all staff that will work that day covering the tasks to be conducted, the hazards of those tasks, the standard safe operating procedures and project lessons learned. All staff will be asked if they have any questions and answered as possible.

5.2 Medical Surveillance

All workers on-site must have current medical clearance to undertake hazardous waste activities and to wear respiratory protection per 29 CFR 1910.120(f). MWH uses WorkCare to approve clinics used to provide examinations, review all medical information supplied by the clinics from the examinations (e.g. questionnaires, spirometry, X-rays etc.) and to issue the clearances. Each MWH employee will have a single sheet approval to undertake hazardous waste activities and to wear a respirator signed by a WorkCare physician.

6.0 REQUIRED MEETINGS

MWH and MWH Subcontractor employees are to attend a project safety orientation, as well as periodic safety meetings. MWH meeting safety topics discussed are to be documented accompanied with an attendance signature sheet. The MWH meetings to be conducted are as follows:

Meeting Type	Purpose	Length	Frequency
Project Orientation	To acquaint employees with the MWH Project scope of work and field activities.	Approximately one hour.	At time of first assignment to the Project.
Pre-Task review of field work.	To cover specific safety topics; or to review hazards and safety practices required for field walk downs	Approximately 10-30 minutes.	At the beginning of new field activities

7.0 SITE HAZARDS AND THEIR CONTROL

Field personnel may be subject to the hazards posed by various activities taking place. This section of the HASP is meant to provide a brief description of the controls that should be taken to prevent injury to employees observing or participating in such tasks. The following types of activities are anticipated on the project. Additional information concerning the prevention and control of injury or illness related to these hazards is included in the MWH Health and Safety Procedures.

7.1 General Site Hazards

The following site hazards are applicable to most projects. The precautions included below should be followed for each project.

7.1.1 Biological Hazards

Potential biological hazards may include of snakes, spiders, ticks, fleas, and poisonous plants such as poison oak and poison ivy.

Spiders, snakes, and fleas exist in cool, dark, moist areas. The potential for encounters exist when reaching into dark, covered places. Field personnel should be aware of their surroundings and avoid contact with all insects. An insect repellent with the active ingredient DEET (no more than 35 percent) should be considered if insects are a prevalent.

Poisonous plants such as poison ivy and poison oak grow wild in dark, moist areas, and at the base or surrounding seedling or adult trees. Some individuals are prone to break out in dermal (skin) rashes upon contact with the plant oil. A visual site inspection and identification of the plants should be completed at the initiation of work at each new location. Precautions, including the use of barrier creams, should be taken to protect the skin from contact with plant oils. In addition, personnel should wash exposed skin areas as soon as possible after contact.

7.1.2 Temperature Extremes

Hot or cold weather is generally a consideration at any site and can not be controlled. Site workers need to be aware of controls that can reduce temperature stress, the signs and symptoms of temperatures stress, and first aid measures for victims of temperature stress. Refer to ES&H Health and Safety Procedure 809, Heat and Cold Stress.

7.2 Site-Specific Hazards

7.2.1 Asbestos

Asbestos is the primary constituent of concern at and near the Libby, Montana mine site. Exposure will be mitigated while working on-site by wearing Level C PPE, which includes respiratory protection. Respiratory protection also will be worn when in the act of collecting samples in off-mine locations. Additional information regarding PPE is presented in Section 8.0.

7.3 Activity Hazard Analysis

The activities covered by this HASP include sampling of environmental media to support the Phase I SAP (EPA, September 2007). This HASP may be updated to include other activity hazard analyses (AHA) for future tasks that may be implemented to support the RI/FS.

7.3.1. Activity: Accessing Sample Collection Locations in Mountainous Areas

MWH personnel will access mountainous areas on foot to collect soil samples and to collect tree bark samples. Access to these areas will be gained via vehicle when logging roads are available. Then, mountainous trails may need to be accessed and hiked to the appropriate sample locations. These hikes may be several hours from the vehicle. Some sample locations may not be on a trail which means very steep and heavily vegetated slopes may need to be accessed. Once on location, the crew will collect shallow soil samples with hand tools and tree bark samples using a hand-held battery-operated drill. The equipment will be decontaminated on-site and samples will be packaged and containerized (usually in coolers to be transported off-site).

Hazards

MWH personnel would be at risk of:

- Getting lost;
- Falling, twisting an ankle or having other medical emergencies;
- Attack by wild animals including bears, wolves and mountain lions;
- Strain injuries from carrying supplies, equipment and samples in coolers;
- Inclement weather;
- Dehydration;

Standard Safe Operating Procedures to Mitigate Hazards

MWH personnel will:

- Work in groups of three to minimize the amount of supplies carried by each individual and minimize the likelihood of attacks by wild animals,
- Carry equipment in backpacks as much as practical to allow hikers to have hands free to move branches and steady themselves while climbing up or down steep slopes,
- Use two workers to carry coolers to remote locations,
- Wear boots with adequate tread for hiking,
- Wear long pants, shirts with sleeves, and socks,
- Carry a satellite telephone in each group to summon help,
- Carry a hikers first aid kit in each group,
- At least one member will carry bear mace and will be instructed as to how to use it,
- Carry head lamps,
- Wear proper attire to prevent hyperthermia including a hat and gloves (as the work is scheduled to occur in October/November),
- Carry adequate water as dehydration may occur while climbing steep mountain trails or very remote locations (e.g. a hike of an hour or more),
- Carry surveyors tape to mark trails,
- Each group shall carry a hand held GPS device to allow the teams to locate sample collection areas and to keep from getting lost,
- Utilize rope tied to a tree if very steep or slippery slopes must be accessed and wear gloves while ascending/descending,
- Notify supervisors if you are allergic to bee stings or insect bites, take necessary precautions and carry antidotes as necessary,

- Wear orange vests if working during hunting season,
- Carry an emergency thermal blanket,
- If possible, use a walking stick that may be used to fight off an aggressive animal.

Note: air samples were collected at On September 12, 2007 at sample locations along the ridgeline to the Northwest, North and Northeast of the mine. The air samples were collected for eight hours and analyzed by transmission electron microscopy for airborne tremolite asbestos. These samples showed no airborne tremolite above 0.0048 structures per mil which was the method analytical sensitivity. Therefore, from this ridgeline which is beyond the WR Grace property and further from the mine, respiratory protection will not be required while accessing the sampling locations.

7.3.2. Activity: Collecting Environmental Samples at the Off-Site Locations

MWH personnel will be collecting soil samples and tree bark samples from the off-site locations. The tree bark samples will be collected using a hand-held cordless battery-operated drill with a hole saw while the employee stands on the ground surface. A core approximately 1-inch deep will be collected from the tree and bagged. Hair spray will be used to spray on the tree bark prior to drilling/coring to reduce airborne asbestos fibers from mechanical cutting of the material. Soil samples will be collected from the base of the tree area and from around a five-foot-diameter circumference around the tree base. Soil samples will be collected after removing pine needles, leaves etc. from the ground surface and then hand digging a small sample of soil two inches deep.

Hazards: Exposure to asbestos

Hazards Associated with collecting soil and tree bark samples include:

- Exposure to airborne tremolite (Libby amphibole) asbestos fibers,
- Scratches to the skin from the drill bit/blade,
- Exposure to decon solutions other than de-ionized water, and
- All of the hazards discussed above related to accessing the sample locations.

Standard Safe Operating Procedures to Mitigate Hazards

- MWH personnel will use hair spray on all tree bark to be cored to reduce airborne asbestos fibers.
- MWH personnel will wear half-face elastomeric respirators with P100 cartridges when coring, digging soil, compositing samples and decontaminating sample equipment.
- If decontamination solutions are used other than de-ionized water, chemical resistant gloves and safety glasses shall also be worn while working with these materials.

7.3.3. Activity: Collecting Samples on the Former WR Grace Mine Properties and Below the Ridgeline of the Mountains Immediately Surrounding the Mine Site Property.

Samples will be collected from the tailings pile, which is on a steep slope at the mine, groundwater samples will be collected from existing monitoring wells, and surface water and sediment samples will be collected from the creeks and ponds at the site.

Hazards:

- Exposure to vehicle traffic on-site
- Exposure to asbestos
- Exposure to plants and animals on-site including bees from bee hive

- Slipping from the creek bank into Rainy Creek
- Falling down the tailings pile slope
- Falling into the surface water while collecting samples while wearing respiratory protection.

Standard Safe Operating Procedures to Mitigate Hazards

- All workers will don a full-face air purifying respirator with P100 cartridges, hooded Tyvek coveralls (two layers), boot covers and gloves per the PPE section of the site health and safety plan for all on-site activities.
- Workers will stay within a maximum water depth of 3 feet while collecting surface water and sediment samples. When there is a risk of falling in water deeper than 3 feet deep, a rope will be used to tether the sample collectors to another employee standing out of the water. Workers in the water will wear waders to prevent exposure to cold and possibly asbestos containing water. Should the surface water freeze, workers will not walk on ice unless it is confirmed to be at least 4 inches thick. All workers working in or adjacent to surface waters greater than 3 feet deep will wear a personal flotation device.
- Workers collecting sediment samples from the on-site creek will wear elastomeric boot covers with good gripping soles or wear steel-toed chemical resistant boots with good gripping soles to walk into the creek or along the creek bank. The creek is shallow and small enough that workers are not at risk of drowning, therefore a personal flotation device is not required, but they could slip on a rock and hit their head or injure the back etc. Therefore, workers will not work alone collecting these samples.
- When collecting samples from the steep tailings pile, workers shall wear boot covers with good gripping soles (not Tyvek booties) and not walk out farther than absolutely required to collect the samples. Ideally access from the top, bottom and sides of the tailings pile will allow workers access for sample collection. If workers must work out on the pile and if the pile is steep and somewhat unstable, workers will be tethered with a rope which will be tied to a tree or large rock or held by a worker not on the pile.
- Worker will remove one Tyvek suit prior to getting into the vehicle for transport to the flyway area for further decontamination.
- Outside vehicle decontamination will be conducted at the vehicle decontamination station located near the small tailings pond. Then the vehicle will be driven to the base of the site to the flyway area where personnel will exit the vehicle and undergo personal decontamination at the decontamination trailer. Water generated for personal decontamination will be transported back up to the mine for on-site disposal. All used PPE will be properly containerized for disposal.

8.0 PERSONAL PROTECTIVE EQUIPMENT

8.1 PPE Requirements

MWH personnel collecting samples on-site and within the first mountain-top perimeter will wear Level C PPE. Level C will consist of chemical protective boots or boot covers, chemical protective nitrile gloves (inner and outer) two layers of Tyvek coveralls (one set of gloves taped to each), and a full-face air purifying respirator with high-efficiency particulate air (HEPA) P100 filter cartridges. A hard hat will not be required unless overhead hazards are identified. Leather gloves will be worn if working with ropes or other equipment that may wear or tear the chemical resistant nitrile gloves. This PPE will be worn while working on-site.

One layer of Tyvek and one pair of chemical resistant gloves (nitrile) will be removed prior to getting into the vehicle to leave the site to go to the flyway area for further decontamination. Respirators will be worn until removed at the personal decontamination area. Prior to removing the outer Tyvek, it may be sprayed with hair spray to keep asbestos fibers from becoming airborne which could be carried into the vehicle.

Work vehicles will remain on-site during the sampling activities (either the mine site or the flyway area).

MWH personnel collecting samples from the off-site locations over the ridge of the mountains shall wear level D PPE and utilize a half-face respirator with HEPA P100 cartridges and nitrile gloves while collecting soil and tree bark samples. Steel-toe boots are not required for the off-mine activities to facilitate hiking over steep, rough terrain; however, suitable hiking boots will be worn (i.e., sturdy, above-ankle boots made with leather or other water-resistant material). Likewise, a hard hat will not be required unless overhead hazards are identified.

All respirators will be inspected daily before use, cleaned daily, allowed to dry, and stored in a clean plastic bag. P100 cartridges will be changed weekly or more frequently if breathing becomes difficult.

Additional general PPE information is available in the MWH ES&H Health and Safety Procedures.

8.2 PPE Decontamination Procedures

Before reentering the vehicle from the mine site, workers wearing Level C PPE will spray their outer garment with hair spray to reduce airborne fibers, remove the outer Tyvek suit and outer gloves, leave the PPE removed at that location in disposal containers, and get into the vehicle. Then while wearing Level C PPE with one pair of gloves and one Tyvek suit, they will have the vehicle decontaminated externally with water on-site by the small tailings pond at the vehicle decontamination pad. Once the vehicle has been washed down, it will be driven on the paved road down to the site entrance/exit. Then it will be driven to the flyway area across Highway 37 from the site to conduct personnel decontamination. Once at the flyway area, the vehicle will be rinsed with clean water on the exterior. This water will be captured for return to the mine site. Workers will exit the vehicle and enter the decontamination trailer. They will remove the booties or boots, roll down inside out their Tyvek suit, remove their respirator, remove their inner gloves and wash their face and hands (or shower). Then workers can change into clean street clothes to leave the site.

9.0 AIR SAMPLING

MWH will collect personal air samples to measure airborne asbestos encountered during work activities. One worker on each field crew will wear a personal air sampling pump while operations are conducted in the field. The air sampling pump will be set to flow at 2 liters per minute. A flexible tube will be connected to the pump on one end and to a 25 mm 0.8 um mixed cellulose ester filter with non-conductive collection cowl at the other end. The filter cassette will be attached to the outer clothing of the worker within his or her breathing zone. The samples will be run for the work duration or up to 8 hours. The samples will be sent to an off-site laboratory accredited by the American Industrial Hygiene Association for analysis by Transmission Electron Microscopy per the AHERA and Yamata protocols.

10.0 DOCUMENTS AND POSTINGS

The following documents, as appropriate, are required to be accessible either at the field office, and/or from an employee's home office:

The following documents are to be kept within the Project files:

- Safety meetings documentation.
- Accident/Incident investigations. (Original copies of Accident/Incident investigations must be forwarded to the ES&H Director, copies will be maintained in project files.)
- Material Safety Data Sheets for chemicals used onsite

11.0 EMERGENCY CONTACT INFORMATION

ALWAYS PROVIDE YOUR EXACT LOCATION TO THE 911 OPERATOR

The Project Manager or designee will be responsible for taking necessary action and contacting the appropriate emergency contacts (e.g., MWH Project Manager, client, Facility Owner) and MWH employees in the event of an emergency.

The following are contacts for emergencies that may occur during fieldwork activities in the Libby Asbestos Superfund Site area:

24-Hour Emergency Hospital

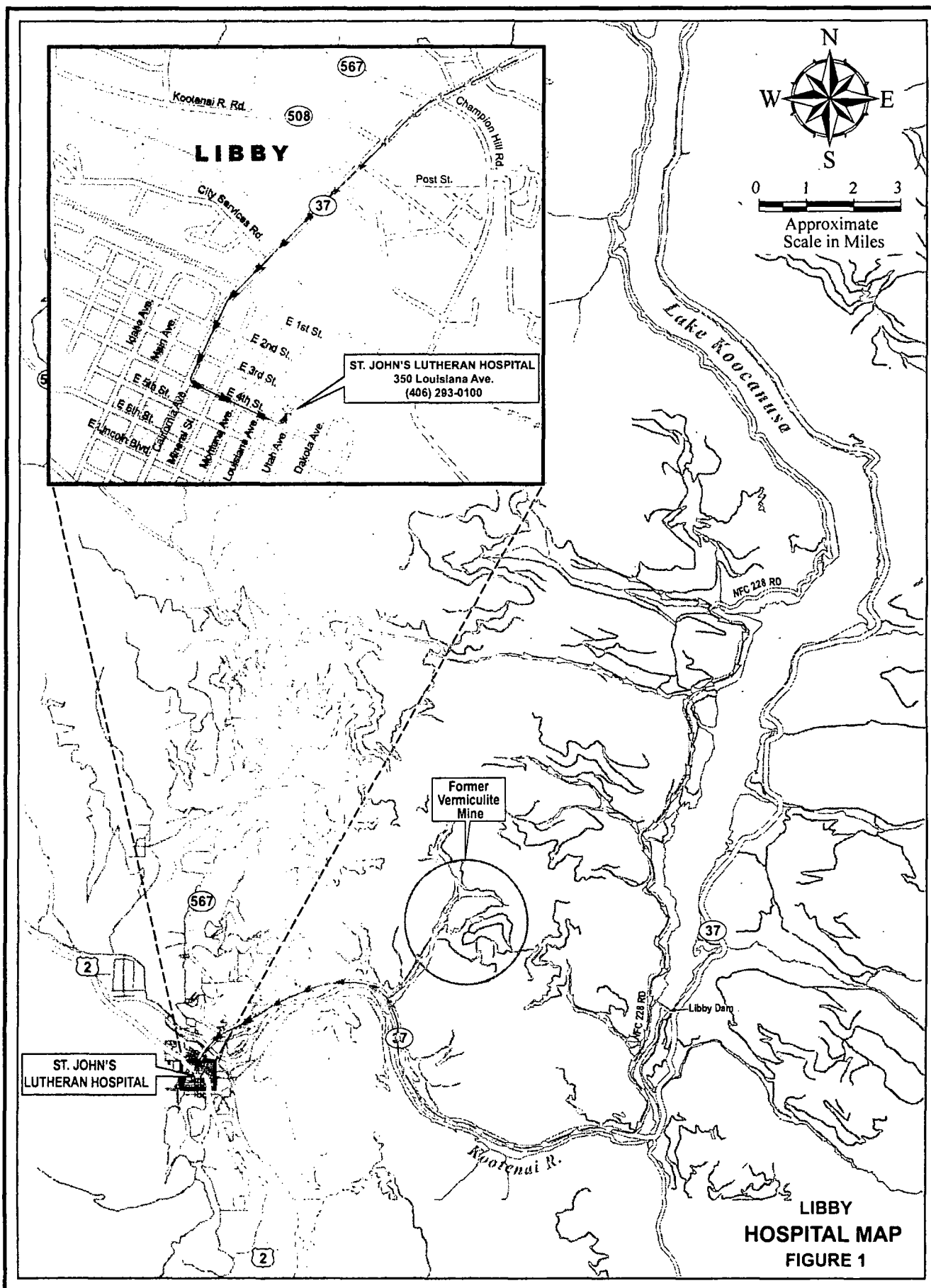
Hospital Name	St. Johns Lutheran Hospital
Address	350 Louisiana Ave Libby, MT 59923
Phone Number	(406) 293-0100

Maps to above locations are provided below.

1. From the mine site, follow route 37 south into Libby, Montana.
2. Turn left (east) onto E 4th Street, continue heading east for three blocks.
3. St. Johns Lutheran Hospital is on the left just past the intersection of E 4th St. and Louisiana Ave.

Emergency Contact Numbers

Ambulance	911
Fire Department	911
Police Department	911
Poison Control	1-800-222-1222
National Response Center	1-800-424-8802
Underground Utilities	1-800-432-4770



Project Contact Personnel

<u>MWH Contact Persons</u>	<u>Work Number</u>	<u>Mobile</u>
John D. Garr Project Manager	(801) 617-3237	(801) 201-7438
Jeremy S. Collyard Project H&S Representative	(480) 756-5302	(928) 200-1625
Clayton A. Bock ES&H Representative	(312) 831-3385	(312) 952-4236

<u>Other Contact Persons</u>	<u>Work Number</u>	<u>Mobile</u>
Remedium Group, Inc /W.R. Grace Robert J. Medler Project Director	(901) 820-2024	

APPENDICES

APPENDIX A

ACKNOWLEDGMENT FORM

As a component of the Health and Safety Plan (HASP) designed to insure personnel safety during project activities, you are required to read and understand the HASP before commencing any work. When you have fulfilled this requirement, please sign and date this personal acknowledgment form.

I have been provided with a copy of the HASP for this field project and have become familiar with it. I understand the Emergency response actions, contact numbers and locations of emergency facilities outlined in Section 10.

I will complete my tasks in a manner conforming to the HASP, MWH ES&H Procedures, and specific additional guidance provided during pre-job briefings, and will inform the Health and Safety Representative or project manager of any conditions affecting site safety.

Printed Name	Signature	Date

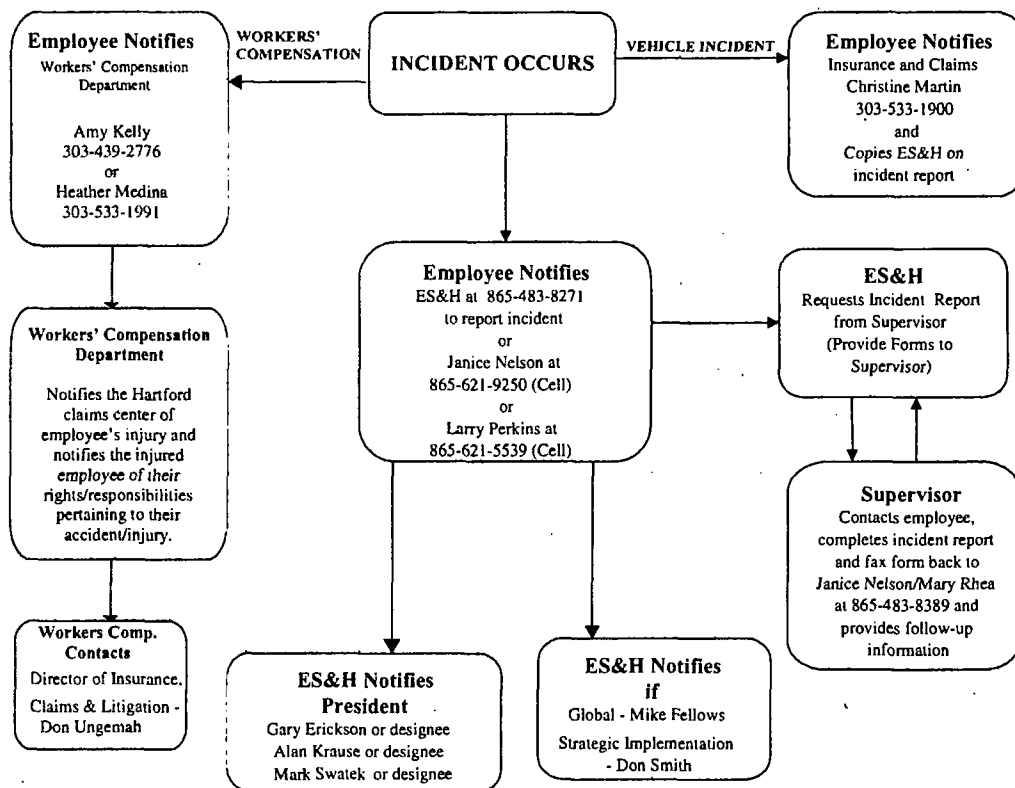
APPENDIX B



Incident Reporting Process Work-Related Injury / Illness or Vehicle Accident

1. Employee(s) should seek necessary medical attention as appropriate:
(a) on-site first aid; (b) emergency room—e.g., identified in safety plan; (c) via 911—transport by ambulance if there is any uncertainty about severity of injury; (d) designated occupational health clinic near office; (e) pre-designated personal physician. Tell medical personnel this is a work-related incident.
2. Employee(s) should report incident to ES&H at 865-483-8271 or contact Janice Nelson (cell 865-621-9250) or Larry Perkins (cell 865-621-5539).
3. Employee(s) should report Worker's Compensation Claims to Amy Kelly (303-439-2776) or Heather Medina (303-533-1991).
4. MWH Supervisor completes MWH Incident Report Form and forwards to Janice Nelson/Mary Rhea (Fax 865-483-8389).
5. **IMMEDIATELY** report work-related deaths; hospitalization for more than observation; or dismemberment to Janice Nelson (865-483-8271 or cell 865-621-9250). If unable to reach Janice, report to the MWH ES&H Director, Larry Perkins (cell 865-621-5539).
6. For Vehicle Accidents, contact Christine (303-533-1900) and complete an MWH Vehicle Incident Report Form. Route to Janice Nelson and Christine Martin.
7. Report forms may be obtained from Janice Nelson or Mary Rhea at 865-483-8271.
8. Supervisor should follow up timecard and lost workday pay issues with group HR Rep. or Amy Kelly (303-439-2776) or Heather Medina (303-533-1991).
9. There may also be client-specific forms and notifications to complete. Check with the project manager for project-specific reporting requirements.

Revised: 5/25/2005



APPENDIX B

OCCUPATIONAL INCIDENT REPORT FORM					
Page 1 of 2					
<div style="display: flex; align-items: center;"> <div style="font-size: 24px; font-weight: bold; margin: 0;">MWH</div> </div>					
EMPLOYEE INFORMATION (Electronically, double click to the left of the box, click checked under default value)					
NAME			DATE OF REPORT		
OFFICE ADDRESS			OFFICE PHONE		
MWH EMPLOYEE (If not MWH employee provide company, address, phone) <input type="checkbox"/> YES <input type="checkbox"/> NO			BUSINESS UNIT		
JOB TITLE	HIRE DATE	BIRTHDATE	SOCIAL SECURITY NO.	GENDER <input type="checkbox"/> M <input type="checkbox"/> F	
SUBCONTRACTOR INVOLVED (If yes, provide company, address, phone) <input type="checkbox"/> YES <input type="checkbox"/> NO					
INCIDENT INFORMATION					
LOCATION (Name of facility, address, specific site)					
DATE OCCURRED			TIME		
TYPE OF INCIDENT: <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div style="width: 45%;"> <input type="checkbox"/> INJURY <input type="checkbox"/> PROPERTY DAMAGE <input type="checkbox"/> OTHER INCIDENT </div> <div style="width: 45%;"> <input type="checkbox"/> ILLNESS <input type="checkbox"/> NEAR MISS </div> </div>					
What was the employee doing just before the incident occurred? Describe the activity, as well as the tools, equipment, or material the employee was using. Be specific. Examples: <i>climbing a ladder while carrying roofing materials; daily computer key-entry.</i>					
What happened? Tell us how the injury occurred. Examples: <i>when ladder slipped on wet floor, worker fell 4 feet; worker developed soreness in wrist over time.</i>					
What was the injury or illness? Tell what part of the body was affected and how it was affected. Be more specific than "hurt," "pain," or "sore." Examples: <i>strained back; carpal tunnel syndrome.</i>					
What object or substance directly harmed the employee? Example: <i>concrete floor; radial arm saw.</i>					

APPENDIX B

OCCUPATIONAL INCIDENT REPORT FORM	
Page 2 of 2	
INJURY/ILLNESS TREATMENT INFORMATION	
INJURY/ILLNESS TREATMENT: <input type="checkbox"/> NOT APPLICABLE <input type="checkbox"/> ON-SITE FIRST AID <input type="checkbox"/> OFFERED & REFUSED <input type="checkbox"/> OFF-SITE (If checked, list name of physician or other health care professional/facility, address, phone)	
Was employee treated in an emergency room? <input type="checkbox"/> YES <input type="checkbox"/> NO Was employee hospitalized overnight as an in-patient? <input type="checkbox"/> YES <input type="checkbox"/> NO	
WITNESS STATEMENTS ATTACHED: <input type="checkbox"/> YES <input type="checkbox"/> NO Witness Names:	
ANALYSIS OF CAUSES AND CORRECTIVE ACTIONS	
WHAT CONDITIONS OR ACTIONS CAUSED OR CONTRIBUTED TO THE INCIDENT? <div style="border: 1px solid black; height: 80px; margin-top: 5px;"></div>	
CORRECTIVE ACTIONS TAKEN OR RECOMMENDED (Describe): <div style="border: 1px solid black; height: 120px; margin-top: 5px;"></div>	
DISTRIBUTION	
(Print/sign name, include office location; Original is forwarded to Health and Safety OKR-1)	
1. EMPLOYEE / REPORTED BY:	2. DIRECT SUPERVISOR:
3. BUSINESS UNIT MANAGER:	4. HEALTH AND SAFETY: Janice Nelson, OKR-1 Telephone: 865-483-8271 Cell phone: 865-621-9250 Facsimile: 865-483-8389

Note: Attach additional sheets as necessary to document incident.

APPENDIX C

Monthly Injury/Illness Report

Form must be completed monthly and submitted to the ES&H Manager by the seventh working day of the following month.

SUBCONTRACTORS

Complete this table for each subcontractor on the project.

Company Name		Reporting Month	Date of Report
Project Name	Contract ID Number	Number of Employees	
	Month	Total for Year to Date	Total for Subcontract
Hours Worked			
Number of First Aid Cases			
Number of OSHA Recordable Cases			
Number of Lost Workday Cases			
Lost Workdays			
Restricted Cases			
Restricted Workdays			
Fatalities			

Company Name		Reporting Month	Date of Report
Project Name	Subcontract ID Number	Number of Employees	
	Month	Total for Year to Date	Total for Subcontract
Hours Worked			
Number of First Aid Cases			
Number of OSHA Recordable Cases			
Number of Lost Workday Cases			
Lost Workdays			
Restricted Cases			
Restricted Workdays			
Fatalities			

APPENDIX C

Pre Job Hazard Briefing

Supervisor	Date			
Brief Job Description				
Location	Job No. (IF APPLICABLE)			
Review hazards of job with each employee prior to start of job using the checklist below.				
Activities	Yes	No	NA	Additional Information
1. Has work to be performed been explained?				
2. Proper safety equipment on job site?				
3. Permit(s) issued: <div style="display: flex; justify-content: space-around; font-size: small;"> Confined Space LO/TO Hot Work Other </div>				
4. Permit(s) reviewed?				
5. Proper tools for job?				
6. Communicated work with others in area?				
7. MSDS reviewed?				

Hazard Identification: List Job Step numbers involved with each hazard	Yes	No	NA	Hazard Controls
1. Chemical (List chemicals here)				
2. Thermal/burn exposure or heat/cold stress				
3. Waste material (List material description here)				
4. Elevated Work (List elevation source here)				
5. Slipping/tripping hazard (List known hazards here)				
6. Overhead work (List type of work here)				
7. Laceration, contusion, pinch point, crushing, abrasion, etc.				
8. Electrical hazard (List electrical source here)				
9. Traffic Safety				
2. Animal & Insects				
3. Poison Ivy Vegetation				